EXHIBIT BB

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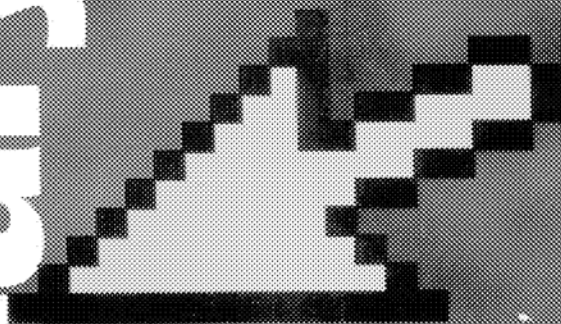
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IBM PC.

I-CASE \I´kās, I´C-A-S-E´\ *n.* Acronym for Integrated Computer-Aided Software Engineering. Software that performs a wide variety of software engineering functions, such as program design, coding, and testing parts or all of the completed program.

ICM \I´C-M´\ *n.* *See* image color matching.

ICMP \I´C-M-P´\ *n.* Acronym for Internet Control Message Protocol. A network-layer (ISO/OSI level 3) Internet protocol that provides error correction and other information relevant to IP packet processing. For example, it can let the IP software on one machine inform another machine about an unreachable destination. *See also* communications protocol, IP, ISO/OSI model, packet (definition 1).

icon \I´kon\ *n.* A small image displayed on the screen to represent an object that can be manipulated by the user. By serving as visual mnemonics and allowing the user to control certain computer actions without having to remember commands or type them at the keyboard, icons are a significant factor in the user-friendliness of graphical user interfaces. See the illustration. *See also* graphical user interface.

Recycle Bin

Icon.

iconic interface \I-kon´ik in´tər-fās\ *n.* A user interface that is based on icons rather than on typed commands. *See also* graphical user interface, icon.

icon parade \I´kon pər-ād´\ *n.* The sequence of icons that appears during the boot-up of a Macintosh computer.

.id \dot´I-D´\ *n.* On the Internet, the major geographic domain specifying that an address is located in Indonesia.

IDE \I´D-E´\ *n.* **1.** Acronym for Integrated Device Electronics. A type of disk-drive interface in which the controller electronics reside on the drive itself, eliminating the need for a separate adapter card. The IDE interface is compatible with the controller used by IBM in the PC/AT computer but offers advantages such as look-ahead caching. **2.** *See* integrated development environment.

identifier \I-den´tə-fī´ər, ə-den´tə-fī´ər\ *n.* Any text string used as a label, such as the name of a procedure or a variable in a program or the name attached to a hard disk or floppy disk. *Compare* descriptor.

idle \I´dl\ *adj.* **1.** Operational but not in use. **2.** Waiting for a command.

idle character \I´dl kâr´ək-tər\ *n.* In communications, a control character transmitted when no other information is available or ready to be sent. *See also* SYN.

idle interrupt \I´dl in´tər-upt\ *n.* An interrupt that occurs when a device or process becomes idle.

idle state \I´dl stāt´\ *n.* The condition in which a device is operating but is not being used.

IDSL \I´D-S-L´\ *n.* Acronym for Internet digital subscriber line. A high-speed digital communications service that provides Internet access as fast as 1.1 Mbps (megabits per second) over standard telephone lines. IDSL uses a hybrid of ISDN and digital subscriber line technology. *See also* digital subscriber line, ISDN.

.ie \dot´I-E´\ *n.* On the Internet, the major geographic domain specifying that an address is located in Ireland.

IE \I-E´\ *n.* **1.** Acronym for information engineering. A methodology for developing and maintaining information-processing systems, including computer systems and networks, within an organization. **2.** *See* Internet Explorer.

IEEE \I´E-E-E´, I´trip-l-E´\ *n.* Acronym for Institute of Electrical and Electronics Engineers. An organization of engineering and electronics professionals

Win32s \win'thür-tē-es'\ n. A subset of the Win32 application programming interface that works under Windows 3.x. By including the Win32s software, which is distributed as freeware, an application can gain in performance from using the 32-bit instructions available on 80386 and higher processors while running under Windows 3.x. See also 32-bit machine, 80386DX, central processing unit, Win32.

Winchester disk \win'ches-tar disk'\ n. An early IBM name for a hard disk. The term is derived from IBM's internal code name for its first hard disk, which stored 30 megabytes (MB) and had a 30-millisecond access time, reminding its inventors of a Winchester 30-caliber rifle known as a "30-30."

window \win'dō\ n. In applications and graphical interfaces, a portion of the screen that can contain its own document or message. In window-based programs, the screen can be divided into several windows, each of which has its own boundaries and can contain a different document (or another view into the same document).

window definition function \win'dō def'-a-nish'-an funk'shan\ n. A resource associated with a window in a Macintosh application. The Macintosh Window Manager calls this function to perform such actions as drawing and resizing the window. Also called WDEF.

windowing environment \win'dō-ing en-vī'ron-ment\ n. An operating system or shell that presents the user with specially delineated areas of the screen called windows. Windowing environments typically allow windows to be resized and moved around on the display. The Macintosh Finder, Windows, and the OS/2 Presentation Manager are all examples of windowing environments. See also graphical user interface, window.

Windows \win'dōz\ n. An operating system introduced by Microsoft Corporation in 1983. Windows is a multitasking graphical user interface environment that runs on both MS-DOS-based computers (Windows and Windows for Workgroups) and as a self-contained operating system (Windows 95, Windows NT). Windows provides a standard interface based on drop-down menus, windowed regions on the screen, and a pointing device such as a mouse.

Windows 95 \win'dōz nīn-tē-fīv'\ n. An operating system with a graphical user interface for 80386 and higher processors, released by Microsoft Corporation in August 1995. Intended to replace Windows 3.11, Windows for Workgroups 3.11, and MS-DOS, Windows 95 is a complete operating system, rather than a shell that requires MS-DOS, as does Windows 3.x. For backward compatibility, Windows 95 can run MS-DOS software. Under Windows 95, filenames can be up to 255 characters long and may include dots and spaces. The My Computer icon on the Windows 95 desktop provides access to the system files and resources, and the Network Neighborhood icon provides access to any network (if the computer is attached to one). See the illustration. Windows 95 supports the Plug and Play method for installing and configuring hardware and can access Windows, NetWare, and UNIX networks. The minimum configuration for Windows 95 is an 80386 processor with 4 MB of RAM, but an i486 or higher processor with at least 8 MB of RAM is recommended. See also MS-DOS, NetWare, Plug and Play, Windows, Windows for Workgroups.
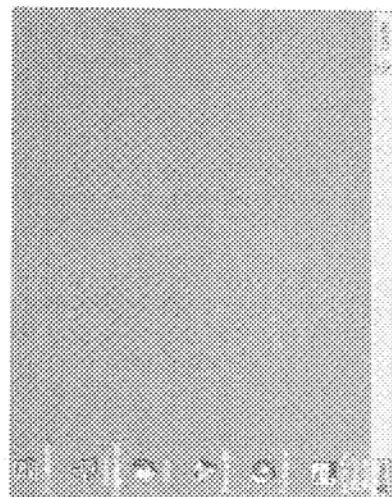
Windows 95.

Windows application \win'dōz a-pli-kā'shan\ n. A software application designed for use with the Microsoft Windows environment.

input

checksums on the code can be recomputed and compared with the stored original checksums each time the program is run; if any have changed, the program file is corrupt and may be infected. *See also* checksum, virus.

input[1] \in′pŏŏt\ *n.* Information entered into a computer or program for processing, as from a keyboard or from a file stored on a disk drive.

input[2] \in′pŏŏt\ *vb.* To enter information into a computer for processing.

input area \in′pŏŏt âr′ē-ə\ *n. See* input buffer.

input-bound \in′pŏŏt-bound\ *adj. See* input/output-bound.

input buffer \in′pŏŏt buf′ər\ *n.* A portion of computer memory set aside for temporary storage of information arriving for processing. *See also* buffer[1].

input channel \in′pŏŏt chan′əl\ *n. See* input/output channel.

input device \in′pŏŏt dē-vīs′\ *n.* A peripheral device whose purpose is to allow the user to give input to a computer system. Examples of input devices are keyboards, mice, joysticks, and styluses. *See also* peripheral.

input driver \in′pŏŏt drī′vər\ *n. See* device driver.

input/output \in′pŏŏt-out′pŏŏt\ *n.* The complementary tasks of gathering data for a computer or a program to work with, and of making the results of the computer's activities available to the user or to other computer processes. Gathering data is usually done with input devices such as the keyboard and the mouse, as well as disk files, while the output is usually made available to the user via the display and the printer and via disk files or communications ports for the computer. *Acronym:* I/O (I-O).

input/output area \in′pŏŏt-out′pŏŏt âr′ē-ə\ *n. See* input/output buffer.

input/output-bound \in′pŏŏt-out′pŏŏt-bound\ *adj.* Characterized by the need to spend lengthy amounts of time waiting for input and output of data that is processed much more rapidly. For example, if the processor is capable of making rapid changes to a large database stored on a disk faster than the drive mechanism can perform the read and write operations, the computer is input/output-bound. A computer may be simply input-

input/output device

bound or output-bound if only input or only output limits the speed at which the processor accepts and processes data. *Also called* I/O-bound.

input/output buffer \in′pŏŏt-out′pŏŏt buf′ər\ *n.* A portion of computer memory reserved for temporary storage of incoming and outgoing data. Because input/output devices can often write to a buffer without intervention from the CPU, a program can continue execution while the buffer fills, thus speeding program execution. *See also* buffer[1].

input/output bus \in′pŏŏt-out′pŏŏt bus′\ *n.* A hardware path used inside a computer for transferring information to and from the processor and various input and output devices. *See also* bus.

input/output channel \in′pŏŏt-out′pŏŏt chan′əl\ *n.* A hardware path from the CPU to the input/output bus. *See also* bus.

input/output controller \in′pŏŏt-out′pŏŏt kən-trō′lər\ *n.* Circuitry that monitors operations and performs tasks related to receiving input and transferring output at an input or output device or port, thus providing the processor with a consistent means of communication (input/output interface) with the device and also freeing the processor's time for other work. For example, when a read or write operation is performed on a disk, the drive's controller carries out the high-speed, electronically sophisticated tasks involved in positioning the read-write heads, locating specific storage areas on the spinning disk, reading from and writing to the disk surface, and even checking for errors. Most controllers require software that enables the computer to receive and process the data the controller makes available. *Also called* device controller, I/O controller.

input/output device \in′pŏŏt-out′pŏŏt dē-vīs′\ *n.* A piece of hardware that can be used both for providing data to a computer and for receiving data from it, depending on the current situation. A disk drive is an example of an input/output device. Some devices, such as a keyboard or a mouse, can be used only for input and are also called input devices. Other devices, such as printers, can be used only for output and are also called output devices. Most devices require installation of software routines called device drivers to enable the computer to transmit and receive data to and from them.

Computer Press Association \kəm-pyōō′tər pres′ ə-sō′sē-ā′shən\ *n.* A trade organization of journalists, broadcasters, and authors who write or report about computer technology and the computer industry.

Computer Professionals for Social Responsibility \kəm-pyōō′tər prə-fesh′ə-nəlz for sō′shəl ri-spän′sə-bil′ə-tē\ *n.* See CPSR.

computer program \kəm-pyōō′tər prō′gram\ *n.* A set of instructions in some computer language intended to be executed on a computer so as to perform some task. The term usually implies a self-contained entity, as opposed to a routine or a library. *See also* computer language. *Compare* library (definition 1), routine.

computer-readable \kəm-pyōō′tər-rē′də-bl\ *adj.* Of, pertaining to, or characteristic of information that can be interpreted and acted on by a computer. Two types of information are referred to as computer-readable: bar codes, magnetic tape, magnetic-ink characters, and other formats that can be scanned in some way and read as data by a computer; and machine code, the form in which instructions and data reach the computer's microprocesses.

computer revolution \kəm-pyōō′tər rev-ə-lōō′shən\ *n.* The societal and technological phenomenon involving the swift development and wide-spread use and acceptance of computers—specifically, single-user personal computers. The impact of these machines is considered revolutionary for two reasons. First, their appearance and success were rapid. Second, and more important, their speed and accuracy produced a change in the ways in which information can be processed, stored, and transferred.

computer science \kəm-pyōō′tər sī′əns\ *n.* The study of computers, including their design, operation, and use in processing information. Computer science combines both theoretical and practical aspects of engineering, electronics, information theory, mathematics, logic, and human behavior. Aspects of computer science range from programming and computer architecture to artificial intelligence and robotics.

computer security \kəm-pyōō′tər sə-kyoor′ə-tē\ *n.* The steps taken to protect a computer and the information it contains. On large systems or those handling financial or confidential data, computer security requires professional supervision that combines legal and technical expertise. On a microcomputer, data protection can be achieved by backing up and storing copies of files in a separate location, and the integrity of data on the computer can be maintained by assigning passwords to files, marking files "read-only" to avoid changes to them, physically locking a hard disk, storing sensitive information on floppy disks kept in locked cabinets, and installing special programs to protect against viruses. On a computer to which many people have access, security can be maintained by requiring personnel to use passwords and by granting only approved users access to sensitive information. *See also* bacterium, encryption, virus.

computer simulation \kəm-pyōō′tər sim-yə-lā′shən\ *n.* See simulation.

computer system \kəm-pyōō′tər si′stəm\ *n.* The configuration that includes all functional components of a computer and its associated hardware. A basic microcomputer system includes a console, or system unit, with one or more disk drives, a monitor, and a keyboard. Additional hardware, called *peripherals*, can include such devices as a printer, a modem, and a mouse. Software is usually not considered part of a computer system, although the operating system that runs the hardware is known as system software.

computer telephone integration \kəm-pyōō′tər tel′ə-fōn in-tə-grā′shən\ *n.* A process allowing computer applications to answer incoming calls, provide database information on-screen at the same time the call comes in, automatically route and reroute calls by drag-and-drop, automatically dial and speed-dial outgoing calls from a computer-resident database, and identify incoming customer calls and transfer them to predetermined destinations. *See also* drag-and-drop.

computer typesetting \kəm-pyōō′tər tīp′set-ing\ *n.* Typesetting operations that are partially or totally controlled by computers. Partial control can involve the transmittal of text directly from the source to the typesetter, without a paste-up stage. Full computerization can include the digitization of all graphics, which would then also be transmitted directly to the typesetter and regenerated without paste-up.

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acy leads to specialized technical knowledge of electronics and assembly language. *See also* power user.

computer-managed instruction \kəm-pyōō′tər-man′ijd in-struk′shən\ *n.* See CMI.

computer name \kəm-pyōō′tər nām\ *n.* In computer networking, a name that uniquely identifies a computer to the network. A computer's name cannot be the same as any other computer or domain name on the network. It differs from a user name in that the computer name is used to identify a particular computer and all its shared resources to the rest of the system so that they can be accessed. *Compare* alias (definition 2), user name.

computer network \kəm-pyōō′tər net′wərk\ *n.* See network.

computer-output microfilm \kəm-pyōō′tər-out′poot mī′krə-film\ *n.* See COM (definition 4).

computerphile \kəm-pyōō′tər-fīl\ *n.* A person who is immersed in the world of computing, who collects computers, or whose hobby involves computing.

computer power \kəm-pyōō′tər pou′ər\ *n.* The ability of a computer to perform work. If defined as the number of instructions the machine can carry out in a given time, computer power is measured in millions of instructions per second (MIPS) or millions of floating-point operations per second (MFLOPS). Power is measured in other ways too, depending on the needs or objectives of the person evaluating the machine. By users or purchasers of computers, power is often considered in terms of the machine's amount of random access memory (RAM), the speed at which the processor works, or the number of bits (8, 16, 32, and so on) handled by the disk is slow (for example, with an access time of 65 milliseconds or higher). *See also* access time (definition 2), benchmark¹, MFLOPS, MIPS.
computer at one time. Other factors enter into such an evaluation, however: two of the most important are how well the components of the computer work together and how well they are matched to the tasks required of them. For example, no matter how fast or powerful the computer, its speed will be hampered during operations involving the hard disk if the hard